

## REMARKS

In the Official Action dated February 14, 2008, claims 1, 2, 7, 8, 10, 25, 28-30, 36-38 and 43-49 are pending and under consideration. Claims 37 and 45 are allowable. Claims 1, 2, 7, 8, 43, 44, 46, 48 and 49 are objected to because of certain informalities. Claims 1, 2, 7, 8, 10, 25, 28-30, 36, 38 and 47 are rejected under 35 U.S.C. §112, first paragraph, for allegedly lacking enabling support. Claims 1, 2, 7, 8, 10, 25, 28-30, 36, 38 and 47 are also rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. Claim 38 is separately rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement because the claim allegedly contains new matter.

This response addresses each of the Examiner's objections and rejections. Accordingly, the present application is in condition for allowance. Favorable consideration of all pending claims is respectfully requested.

### Claim Amendments:

Claim 1 has been amended to delete references to a derivative of the IL-13 receptor  $\alpha$ -chain. Claim 1, as amended, is directed to a nucleic acid molecule comprising a nucleotide sequence which encodes the IL-13 receptor  $\alpha$ -chain as set forth in SEQ ID NO: 4.

Claim 2, as amended, is drawn to a derivative of the IL-13 receptor  $\alpha$ -chain as set forth in SEQ ID NO: 4. The derivative is characterized by a functional feature, "binds with IL-13", as well as a structural feature, "comprises amino acids 28-342 of SEQ ID NO: 4 or comprises an amino acid sequence having at least 95% identity with amino acids 28-342 of SEQ ID NO: 4". The recited segment, "amino acids 28-342", represents the extracellular domain of

the human IL-13 receptor  $\alpha$ -chain. This recitation, albeit different from the previous recitation "amino acids 28-346", is fully supported by the specification and does not introduce new matter.

Specifically, the previous recitation of "amino acids 28-346" of SEQ ID NO: 4 (human) is based on an alignment between human and murine sequences and on the disclosure of a murine soluble form composed of amino acids 27-344 of SEQ ID NO: 2 (murine receptor) in Example 12 (page 40 of the specification). However, the murine soluble form disclosed in Example 12 does not correspond exactly to the extracellular region of SEQ ID NO: 2 as taught in Figure 1, but includes the first few amino acids of the transmembrane domain. In this regard, Figure 1 (renumbered as Figure 1A-1G and resubmitted on January 25, 2007) and the accompanying description on page 31 of the specification reveal that the mouse receptor has a 26 amino acid signal sequence (see sheets Figure 1B-1C) and a transmembrane domain from amino acid 341 to 364 (see sheets Figure 1F-1G), which indicates that amino acids T27-T340 constitute the extracellular region of the mouse receptor. The alignment of the extracellular region of the mouse receptor (i.e., T27-T340 of SEQ ID NO: 2) with SEQ ID NO: 4 in Figure 7 indicates that T28-T342 of SEQ ID NO: 4 correspond to the extracellular region of the human receptor; it is noted that minor numbering errors in Figure 7 were identified and remedied in the Response filed on May 8, 2006, and do not affect the alignment of the sequences themselves in any event.

In sum, the reference to "amino acids 28-342" of SEQ ID NO: 4, presently recited in claim 2, is fully supported by the application as filed. Claim 43 has also been amended to recite "amino acids 28-342", consistent with the amendment to claim 2. Claim 48 has also been amended to reference the nucleotide position corresponding to the amino acid residue at position 342 of SEQ ID NO: 4.

Claim 7 has been amended to delete the reference to a derivative of the IL-13 receptor  $\alpha$ -chain. Claim 7, as amended, is directed to a nucleic acid molecule comprising SEQ ID NO: 3, or a nucleotide sequence that hybridizes to the complement of SEQ ID NO: 3 under specified stringency conditions. Support for the conditions is found in the specification, e.g., on page 39, lines 19-22. The nucleic acid of claim 7 is also characterized as encoding an IL-13 receptor  $\alpha$ -chain.

Claims 8 and 38 have been canceled. Claims 30, 36 and 45-46, drawn to host cells, are also canceled. Instead, new claims 53-54 are added and are directed to isolated host cells.

Other changes have been made to the claims in order to address the Examiner's rejections and objections. Applicants respectfully submit that no new matter is introduced by the foregoing amendments.

#### Objections to Claims

Claims 1, 2, 7, 8, 43, 44, 46, 48 and 49 are objected to because of certain informalities. Specifically, the Examiner indicates that in claims 1-2 and 7-8, the term "No: 4" is not capitalized in a consistent manner with the existing claim language ("NO: 4"), and the term " $\alpha$ -chain" is not presented in a consistent manner with the existing claim language ("alpha chain").

The claims have been amended to address the Examiner's objections. As such, the Examiner's objections are obviated and withdrawal thereof is respectfully requested.

#### Rejections Under 35 U.S.C. §112, First Paragraph

Claims 1, 2, 7, 8, 10, 25, 28-30, 36, 38 and 47 are rejected under 35 U.S.C. §112, first paragraph, for allegedly lacking enabling support.

The Examiner has first acknowledged that the specification is enabling for an isolated nucleic acid molecule comprising a nucleotide sequence encoding an IL-13 receptor  $\alpha$ -chain comprising the amino acid sequence set forth in SEQ ID NO: 4 or a nucleotide sequence encoding a derivative of said IL-13 receptor  $\alpha$ -chain, wherein the derivative is an extracellular domain of the IL-13 receptor  $\alpha$ -chain having at least 95% identity with amino acids 28-346 of SEQ ID NO: 4 and wherein said derivative binds with IL-13.

However, the Examiner contends that the specification does not provide enablement for derivatives of the IL-13 receptor  $\alpha$ -chain that are characterized as "immunologically interactive with antibodies to said IL-13 receptor alpha chain". The Examiner also objects to the recitation in claim 2, "comprising an amino acid sequence set forth in SEQ ID NO:4", and similarly, the recitation in claim 7, "having a nucleotide sequence as set forth in SEQ ID NO:3". Further, the Examiner contends that the portion of claims 7-8, "a sequence of nucleotides which encodes an IL-13 receptor  $\alpha$  chain", still lacks structural and functional limitations. Moreover, claim 38 remains rejected because the claim still refers to "an extracellular domain of an IL-13 receptor alpha chain", without further defining the extracellular domain.

In response, claim 38 is canceled, rendering the Examiner's rejection thereof moot. With respect to claims 1-2 and 7, Applicants have amended the claims to delete the reference to "immunologically interactive with antibodies to said IL-13 receptor alpha chain". As presently recited in claim 2, the derivative is defined simply as "binds with IL-13". Claims 2 and 7, as presently amended, also use the article "the" instead of "a" or "an" in the context of specified sequences.

Claims 1 and 2, presently directed to nucleic acid molecules encoding an IL-13 receptor  $\alpha$ -chain and a derivative thereof, respectively, are written consistent with what the

Examiner has specifically acknowledged as enabled. The nucleic acid molecule of claim 7, which is characterized both structurally (by sequence or by hybridization features) and functionally (encoding an IL-13 receptor  $\alpha$ -chain), is also disclosed in the specification in a manner that would have enabled those skilled in the art to make and use the molecule without undue experimentation.

In view of the amendments to the claims, Applicants respectfully submit that the enablement rejection under 35 U.S.C. §112, first paragraph is therefore overcome. Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 7, 8, 10, 25, 28-30, 36, 38 and 47 are rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement.

It is believed that the claims, as presently amended, are fully described in the specification in a manner consistent with the written description requirement. Therefore, withdrawal of the rejection is respectfully requested.

Claim 38 is separately rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement because the claim allegedly contains new matter. The rejection is moot in view of the cancellation of the claim.

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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